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THE MORE IMPORTANT RECORDS FOR JULY 1935

The grasshopper and chinch bug situations have not materially changed since our last report.

The occurrence of two Asiatic weevils, Myllocerus castaneus Roelofs and Calomycterus setarius Roelofs, in the Middle Atlantic States was probably the most interesting feature of the month. M. castaneus was first collected in 1933 at Montclair, N. J., and was again collected this year at the same place. Although this species is not recorded as a pest in Asia, the genus contains many species that are crop pests, and one a very serious pest of cotton in India. C. setarius was first collected in this country at Yonkers, N. Y., in 1929. In 1932 it was reported as injuring iris and other plants in Connecticut, and this year it was again found in that State attacking greenhouse plants, and was found in enormous numbers in Maryland and Pennsylvania feeding on a wide variety of plants.

The Japanese beetle was occurring in increasing numbers in the central portion of the main infested area, and in the outlying parts of the generally infested area the populations are decidedly on the increase.

Common red spiders occurred in destructive numbers from Maryland to Florida and westward to Nebraska and Mississippi, with isolated reports from the Great Basin and the Pacific Northwest.

Early in the month the corn ear worm was reported quite generally throughout the Northern States as doing serious damage to tomatoes in many sections. During the latter part of the month it was reported as injuring corn.

Scouting for the alfalfa weevil has resulted in the finding of this insect in Sioux and Scotts Bluff Counties, Nebr.; Montezuma County, Colo.; Kane County, Utah; Clark County, Nev.; Coconino County, Ariz., and Mendocino County, Calif.; and in confirmation of its occurrence in Malheur, Baker, and Union Counties, Oreg., as well as in various other counties previously known to be infested.

The apple maggot emerged later than usual in New England and New York and was appearing early in July in Michigan and Wisconsin.

The plum curculio is apparently less troublesome than was at first anticipated, dry weather preventing the new beetles from depositing many eggs, particularly in the Fort Valley peach-growing district of Georgia.

The oriental fruit moth appeared to be decidedly on the increase from the East Central States southward to Tennessee and Mississippi.

A localized outbreak of the cherry leaf beetle was reported from western Maryland and West Virginia.

The Colorado potato beetle appeared in unusually destructive numbers from Ohio and Indiana westward to Minnesota and the Dakotas.

The Mexican bean beetle was reported from central Iowa, far west of its known distribution outside of the Rocky Mountain region.

The imported cabbage worm is generally prevalent and destructively abundant from Ohio to Minnesota and Kansas, and is reported as doing considerable damage in Utah.

Curly top destroyed many plantings of tomatoes in southwestern Idaho and northern Utah.

Cotton aphid infestations were reported from the entire Cotton Belt, but especially from areas where arsenicals had been used extensively to control the boll weevil and cotton leaf worm.

The satin moth was found in eight counties in the Willamette Valley of Oregon.

The bagworm was reported as destructively abundant throughout the New England, Middle Atlantic, East Central, and Gulf Coast States.

The elm leaf beetle was reported as seriously damaging elms throughout the New England and Middle Atlantic States, southward to North Carolina, and westward to Ohio. Severe defoliation of elms was also reported from the Pacific Northwest.

The screw worm continued to cause enormous losses to livestock in Texas, whereas in the Southeastern States losses have been far less serious during the month.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

Wisconsin. E. L. Chambers (July 23): Although grasshoppers are prevalent over most of the infested area, the losses have been restricted to parts of less than a dozen counties where local rains have not been heavy.

North Dakota. F. D. Butcher (July 7): Third-instar and fourth-instar nymphs of the clear-winged grasshopper (Camnula pellucida Scudd.) were migrating across the highway from a pasture to a small-grain field, in a strip about 10 rods wide, at Hurdsfield, Wells County. (July 12): In a population of about 12 grasshoppers per square yard, Melanoplus mexicanus Sauss. was the predominant species. In a population composed of forms ranging from third-instar nymphs to adults, less than 1 percent had reached the adult stage at Ellendale and Lisbon, where the concentration was about 5 per square yard.

South Dakota. H. C. Severin (July 22): Infestations are very spotted and range from very light to heavy. Some damage has been done to gardens, small grain, and alfalfa. Range grass has suffered slightly.

Iowa. H. E. Jaques (July 22): Many grasshopper nymphs are now in evidence in southeastern Iowa.

Nebraska. M. H. Swenk (July 15): Mild and isolated infestations developed in Thomas and Cheyenne Counties, but there have been no serious depredations anywhere in the State.

Kansas. H. R. Bryson (July 27): M. bivittatus Say and M. differentialis Thos. are not so plentiful this year. (July 24): Pardalophora haldemanii Scudd. flew to the lights in the city of Manhattan and caused considerable annoyance. They were plentiful from July 3 to July 15 and were most numerous on July 13. A similar flight occurred at Wakefield on July 15.

Oklahoma. C. F. Stiles (July 22): Grasshoppers of various species are appearing in large numbers in some of the central counties of the State and also in practically all of the northwestern counties that were so hard hit by the drought last year. The center of infestation seems to be in Roger Mills, Ellis, and Major Counties. M. mexicanus, the species that usually causes most of the damage in Oklahoma, is quite numerous. Some poisoning is being done.

Idaho. C. Wakeland (July 24): Grasshoppers are moderately abundant in a few localities of Gem and Washington Counties and Federal grasshopper bait is being used for control. Populations are very low in the rest of the State and we have had no reports of control being necessary.

Utah. G. F. Knowlton (July 11): Warrior grasshoppers (C. pellucida) have hatched out in considerable numbers in meadow land 8 miles north of Randolph.

C. J. Sorenson (July 20): C. pellucida is moderately abundant in Cache and Millard Counties. Nymphs of another species were very abundant on June 26.

Oregon. D. C. Mote (July): All leaves of second-stand alfalfa on 65 acres at Oakridge have been consumed by nymphs.

MORMON CRICKET (Anabrus simplex Hald.)

Idaho. C. Wakeland (July 24): The most interesting thing to report this month is parasitization of the Mormon cricket by the hairworm Gordius villoti Rosa. Farmers are of the opinion that about 50 percent of the crickets they mashed when destroying them around their gardens contained hairworms, but when I investigated last week I found that only 1 cricket out of 300 dissected was parasitized. However, dead crickets were numerous in the streams and apparently the cycle of Gordius had already been passed inside the cricket bodies.

EUROPEAN EARWIG (Forficula auricularia L.)

Rhode Island. L. H. Worthley (July 15): Weather conditions have proved ideal for this species and heavy infestations have occurred in Newport County. An eradication campaign is under way.

CUTWORMS (Noctuidae)

Nebraska. M. H. Swenk (July 15): The variegated cutworm (Lycophotia margaritosa saucia Hbn.) was present in outbreak proportions from June 19 to 27. Damage was chiefly in the alfalfa, corn, and potato fields and in the gardens of southeastern Nebraska. After the close of this outbreak a later isolated outbreak occurred in the alfalfa fields of central Nebraska from July 5 to 10. In Loup County these cutworms took as high as 25 percent of the alfalfa in several fields before the poisoned-bran bait could be used to check them.

California. A. E. Michelbacher (July 22): The yellow-striped armyworm (Prodenia praefica Grote) was very abundant at Vernalis on July 19. In one alfalfa field at least it was doing considerable damage. The feeding was heavy enough to be observed at some distance.

ARMYWORM (Cirphis unipuncta Haw.)

Ohio. E. W. Mendenhall (July 8): The armyworm is very destructive to rye fields and meadows in Champaign and Madison Counties.

Indiana. J. J. Davis (July 24): Armyworms have been reported from practically all sections of the State. The reports from June 24 to July 3

came from the northern half. Timothy, wheat, rye, and corn are the crops attacked.

Iowa. H. E. Jaques (July 22): Armyworms are still in evidence but danger of serious damage seems to have passed. An unusual abundance of Archytas analis Fab. is being found. As this is often the outstanding parasite of the armyworm in this part of the country, its abundance indicates a great reduction in the number of armyworm moths.

Missouri. L. Haseman (July 22): Moths of the armyworm are now on wing, feeding on the juice of over-ripe peaches and apples.

Nebraska. M. H. Swenk (June 30): The outstanding insect pest of the second half of June was the true armyworm, of which many complaints of damage to rye, wheat, corn, and alfalfa were received. These reports of damage came chiefly from the southeastern corner of the State. In many cases the damage was serious, although there were but few instances of migration.

FALL ARMYWORM (Laphygma frugiperda S. & A.)

Mississippi. C. Lyle (July 23): An outbreak of the southern grassworm is occurring in the southern part of the State. Specimens have been received from Liberty, in Amite County, and from Sandy Hook, in Marion County. One correspondent reported that corn in some fields had been reduced to stubs.

BERTHA ARMYWORM (Barathra configurata Walk.)

North Dakota. J. A. Munro (July 28): There are spotted infestations in the central part of the State. Near Jamestown, in Stutsman County, in a 75-acre field of flax, 35 acres had already been stripped on July 25. The worms were invading the remainder. Another 30-acre flax field nearby showed only slight damage and light infestation. On July 27 we looked over several fields of flax northeast of Bismarck, in Burleigh County. The damage ranged from a negligible amount to complete destruction. We saw an 80-acre field of flax that was completely stripped. On July 28, one 30-acre field of flax, northwest of Mandan, in Morton County, had a patch of 7 or 8 acres destroyed, and the worms were working into the remainder. Other fields inspected showed less injury. Examinations to date have shown the worms to be most abundant in weedy flax fields. In one field near Jamestown natural mortality of the armyworms ranged from 25 to 70 percent in different parts of the field, averaging about 40 percent. The cause of the mortality was not determined but is believed to be due to the combined attack of disease and predators.

WIREWORMS (Elateridae)

Wisconsin. E. L. Chambers (July 23): Wireworms were unusually injurious to corn, onions, potatoes, and other crops planted on heavy black soil, especially where drainage was poor, in Milwaukee and Kenosha Counties.

Nebraska. M. H. Swenk (July 15): On June 25 the upland corn wireworm (Melanotus pilosus Blatch.) was found working in young corn in Merrick and Lancaster Counties. This pest was complained of as destroying onions in Grant County on June 28. On July 6 the wireworm was found badly injuring a potato field in Antelope County.

Kansas. H. R. Bryson (July 27): Monocrepidius sp. reported injuring potato tubers and the roots of tomatoes at Peru on June 25.

Washington. M. C. Lane and H. P. Lanchester (July): Severe injury by Pacific coast wireworms (Pheletes canus Lec.) to spring onions and cantaloup has been noted in several fields near Walla Walla during the past month. In one cantaloup field over 20 percent of the hills were totally destroyed. Careful damage counts showed from 8 to 15 percent of the onions culled out for injury in one field alone.

K. E. Gibson (July 18): An investigation in the district near Sunnyside showed that where it had been necessary to make a second seeding of sugar beets, the first seeding having failed because of adverse weather conditions, the second planting had, in many instances, been heavily damaged by wireworms. A number of tracts of sugar beets of from 3 to 5 acres had been destroyed.

A WEEVIL (Myllocerus castaneus Roelofs)

New Jersey. A. C. Davis (June 30): On June 30 three specimens of this weevil were taken a short distance from Montclair. One was beaten from wild grape, another from oak, and the third from ash(?). The insect seems to be a general feeder. (Det. by L. L. Buchanan.) (This species was first collected in the United States in August 1933 at Montclair. It was originally described from Japan in 1873. In 1884 it was recorded from Russian Siberia. Practically nothing is known of the habits of this species but it belongs to a large genus of over 90 species. The greater number of the species are in India and the East Indies, a few are in Africa, and one in Australia. One species, M. blandis Boh., is a serious pest of cotton in Punjab, India. The different species of the genus are known to feed on a wide variety of food plants of which 44 have been recorded and among which may be mentioned such plants as cotton, tobacco, eggplant, potato, grapefruit, apple, sugarcane, tea, and cacao.)

JAPANESE BEETLE (Popillia japonica Newm.)

General. C. H. Hadley (July 30): The outstanding feature of the current beetle season is the very marked increase of the infestation and the severity of feeding on foliage, as compared with those of a year ago. Within the central part of the main area of infestation, where the insect was first found and in which it has been longest established, the beetle population is noticeably heavier than during the past several years, although not as yet reaching the peak infestations of 1924-27. In general, around the periphery of the area

of heaviest infestation, the beetle population considerably exceeds that of the past several seasons. The increase in abundance has also been especially noticeable in the large metropolitan areas of New York, Brooklyn, Philadelphia, Wilmington, and Baltimore. Beyond the main area of heavy beetle infestation, reports indicate that there is a corresponding increase in the population at points of local infestation. Injury to vegetation is noticeable this year for the first time.

Rhode Island, Massachusetts, and Connecticut. L. H. Worthley (July 15): State Japanese beetle traps in Rhode Island began catching beetles on July 2. By July 9 over 400 beetles had been caught, 262 being found on one property. Eleven beetles were caught in 25 traps set in South Boston, the first catch having been made on July 13. At Springfield, Mass., the first beetle was taken on July 1, and at Norwich, Conn., on July 3.

Connecticut. W. E. Britton (July 23): Adults have been more abundant than ever before in certain localities in Bridgeport, Hartford, and New Haven, and have caused some injury to plants.

New York. L. H. Worthley (July 29): Scouting for the Japanese beetle in nurseries and greenhouses in the Syracuse area was started on July 12. On July 15 discovery was made of a first-record infestation at Glens Falls, in Warren County. The scout crew collected 34 beetles within 300 feet of nursery premises in that city.

New York and New Jersey. M. Kisliuk, Jr., and E. Kostal (July 8): The first few adults of the Japanese beetle made their appearance on milkweed and ragweed in Jamaica, L. I., N. Y., on July 1, and on rose at Morganville, N. J., on June 29.

Delaware. L. A. Stearns (July): Adults present in great numbers and causing wide-spread injury around Wilmington; apparently near the peak of infestation for this district.

Maryland. E. N. Cory (July 24): Japanese beetles being reported quite frequently from the Baltimore area.

ROSE CHAFER (Macrodactylus subspinosus Fab.)

Maine. H. B. Peirson (July): Reported in central and southern Maine in June and July. Adults swarming and feeding abundantly on apple (especially the young fruit), red maple, silver maple, cherry, elm, alder, woodbine, phlox, daisies, corn, and beans.

Maryland. E. N. Cory (July 24): Early in June there was a heavy infestation of rose chafers.

Wisconsin. E. L. Chambers (July 23): Rose chafers have defoliated everything in their path in portions of Shawano and Monroe Counties.

A CHINCH BUG (Blissus hirtus Montd.)

New Hampshire. L. C. Glover (July 24): There have been a few reports of injury to lawns by chinch bugs.

Ohio. J. S. Houser (July 23): Despite abundant rains and copious artificial watering this chinch bug is thriving and numerous young are appearing at Cleveland. Dead patches in lawns have begun to appear.

SAY'S STINK BUG (Chlorochroa sayi Stahl)

California. H. J. Ryan (July 1): Say's plant bug was noted during the week of June 16 in considerable numbers on the south side of the Antelope Valley in a strip extending about 5 miles east and west of Palmdale, traveling across and through the sagebrush. Adults were in evidence flying from plant to plant, always in the direction of the foothills to the south, where great numbers of half-grown bugs were wandering aimlessly on the ground or resting on the plants. There are a few pear orchards in the line of travel, but no damage has been found in any of them.

COMMON RED SPIDER (Tetranychus telarius L.)

Maryland. E. N. Cory (July 24): The red spider is exceedingly numerous.

Georgia. O. I. Snapp (May 31): Very abundant and has seriously injured beans and other vegetables at Fort Valley. May has been an unusually dry month.

Florida. J. R. Watson (July 22): Red spiders have been rather common on citrus.

Ohio. N. F. Howard (July 23): Red spiders are becoming increasingly abundant on a variety of hosts in Columbus, viz.; soft maple, flowering beans, garden beans, and ornamentals.

E. W. Mendenhall (July 20): The red spider has been very injurious to raspberry plants near Carroll, in Fairfield County.

Indiana. J. J. Davis (July 24): On June 27 red spiders were destructive to beans and corn at Cedar Grove.

Nebraska. M. H. Swenk (July 1 to 15): One of the more outstanding pests of the period has been the red spider. Although many plants were attacked, the most complaints concerned red raspberries, currants, beans, and bittersweet.

Kansas. H. R. Bryson (July 27): Red spiders have been unusually destructive during the past month on large American elms, vegetables, ornamental shrubs, grasses, and weeds.

Oklahoma. F. E. Whitehead (July 22): The red spider, which customarily appears in dry hot spells, is much worse than usual this spring, and in the vicinity of Stillwater a large variety of plants has been severely injured. Reports from over the State indicate that the infestation is more or less general.

Idaho. R. W. Haegele (July 22): In a few places the common red spider increased to injurious numbers during July.

Utah. G. F. Knowlton (July 22): Red spiders are damaging raspberries.

Oregon. D. C. Mote (July): Two-spotted mites at Milton and Freewater. Considerable injury on prune foliage.

C E R E A L A N D F O R A G E - C R O P I N S E C T S

WHEAT AND OTHER SMALL GRAINS

HESSIAN FLY (Phytophaga destructor Say)

Ohio. T. H. Parks (July 25): Hessian fly increased greatly during the spring, but was not responsible for heavy loss in yield. Most of the infested straws remained standing and there was usually one flaxseed per straw. The heaviest infestation was found in Seneca County, where 54 percent of the straws were infested. The infestation was heaviest in counties having the most early sown wheat.

J. S. Houser (July 23): There has been a sharp increase in hessian fly abundance in Ohio this season. Some very heavily infested fields have been found. In some fields examined many of the flaxseeds are located high up on the straw.

Oklahoma. C. F. Stiles (July 22): Quite heavy infestation has been reported at Jefferson in Grant County.

WHEAT STEM MAGGOT (Meromyza americana Fitch)

North Dakota. F. D. Butcher (July 17): Traces of the wheat stem maggot were observed in several wheat fields in Dickey and Ransom Counties. In a rye field in which the white heads were conspicuous, a count revealed 1 percent of the straws attacked.

BLACK GRAIN-STEM SAWFLY (Trachelus tabidus Fab.)

Ohio. J. S. Houser (July 23): This insect has extended its range in Ohio this year, having been found as far west as Wooster and 33 miles north of Marietta. Some heavily infested fields in Mahoning and Columbiana Counties. Because of the heavy stand, infested wheat did not lodge as severely as did the fields with thin stands in 1934. From last year's observations, as well as from those of this season, this insect bids fair to become a major wheat pest.

GRASS THRIPS (Anaphothrips obscurus Mull.)

Ohio. N. F. Howard (July 23): Oat bugs are very numerous as oats are ripening and being cut and are very annoying to rural residents.

Indiana. J. J. Davis (July 24): The oats bug has been especially abundant and annoying in the northern half of the State, where it is not an annual event. Definite reports of unusual abundance have come from Bluffton, Portland, Winchester, LaFayette, and Monticello.

CORN

CHINCH BUG (Blissus leucopterus Say)

Ohio. T. H. Parks (July 25): Until the second week in July rains killed chinch bugs nearly as fast as they hatched. Since that time isolated farms have been infested with migrating late-hatched bugs that have not done serious damage because the corn was well along. In one western Ohio area that was missed by most of the rains the bugs have been marching into cornfields since July 10. Barriers have been necessary in this area and on isolated farms in 10 other counties. The bugs are now almost out of the wheat stubble.

Indiana. J. J. Davis (July 24): Chinch bugs have been persistent, notwithstanding adverse weather conditions. In the areas along the west side of the State, where the heaviest infestations occurred in 1934, the bugs have been largely wiped out. This, perhaps, was largely due to the white-mold fungus. The bugs in this region went into winter quarters in superabundance, but were evidently weakened from scarcity of food due to drought; then followed wet weather last spring. Thus the old bugs were emaciated and, with the high humidity, most of them succumbed. In the eastern part of the State the bugs were not emaciated, they were not so crowded in their winter quarters, and, notwithstanding excessive moisture, the white-mold fungus was not a significant factor. However, the continuous driving rains have held the young bugs in check and even in areas where they still continue in large numbers, they are not migrating freely because of excessive grassy growths in grain stubble. If we have normal weather the remainder of the season we can anticipate an appreciable amount of damage by the second generation of bugs and throughout the northern two-thirds of the State a carryover of bugs that would threaten the 1936 crop.

Illinois. W. P. Flint (July 24): Wet weather has continued during July and reduced the chinch bugs to such an extent that migration from small-grain fields to corn occurred in less than 1 percent of the small-grain fields. The only areas where any general migrations occurred were sand areas in the northwestern and southeastern parts of the infested section of the State.

Wisconsin. E. L. Chambers (July 23): No appreciable damage was observed to small grains and very little migration into cornfields reported as grain is being cut.

Iowa. C. J. Drake (July 29): Chinch bug migration is still in progress. A little damage is being done in cornfields. In most cases farmers have erected barriers. The infestation is confined to the eastern portion of the State, being heaviest from Cedar Rapids to Clinton and south to Burlington. In the fall of 1934 many farmers planted rye. Late this spring many of the rye fields were plowed under and planted to corn. Wet weather kept quite a number of the rye plants alive and they afforded suitable breeding places for chinch bugs. As a result, much of the corn planted in the turned-under rye fields is infested heavily.

Missouri. L. Haseman (July 22): Continued rains held back breeding and so reduced first-brood bugs that, except for occasional pastured fields of rye and wheat, bugs were too scarce at wheat harvest to cause any anxiety. Barriers were constructed in three or four northeastern counties.

Kansas. Although chinch bugs were found in the eastern part of the State, they were not numerous enough to warrant the construction of barriers.

CORN EAR WORM (Heliothis obsoleta Fab.)

Connecticut. N. Turner (July 22): Only one half-grown larva seen thus far in southern Connecticut. Less abundant than last year. Reported as present at Derby.

Maryland. E. N. Cory (July 24): The corn ear worm seems to be building up rapidly.

Virginia. H. G. Walker and L. D. Anderson (July 26): Moderately abundant on tomatoes and from moderately abundant to very abundant on field and sweet corn in the vicinity of Norfolk.

South Carolina. F. Sherman (July 16): Infestation in tomatoes has been above normal, but it is now decreasing as nearby corn silks become available.

Ohio. H. C. Mason (July 20): The tomato fruit worm is causing considerable injury to tomatoes at South Point, but is not as serious as in 1934.

E. W. Mendenhall (July 17): The tomato fruit worm is very injurious in southwestern Ohio, doing severe damage to tomatoes.

Illinois. W. P. Flint (July 24): No reports of damage from the corn ear worm have been received to date.

Iowa. C. J. Drake (July 29): The corn ear worm is fairly abundant in the southern half of the State. Considerable damage has been noted in Marshall and Story Counties.

Missouri. L. Haseman (July 22): The first generation has been showing up

in the tassel end of young corn and a few complaints have already been received where it is working in early sweet corn.

Arkansas. D. Isely (July 20): Injury by the corn ear worm is unusually light for the latter part of July.

Kansas. H. R. Bryson (July 27): The corn ear worm injured early sweet corn quite severely, although the injury did not appear quite so severe as in other years. A report of ragworm injury was received from Summerfield. Many local reports of injury to tomatoes. Reports of serious damage to tomato fruits were received from Marquette, Alma, and White Water.

Oklahoma. F. E. Whitehead (July 22): The corn ear worm is infesting approximately 100 percent of the sweet corn in the vicinity of Stillwater and is extremely common in other varieties.

Idaho. R. W. Haegele (July 22): The corn ear worm is very common this year in the southwestern part of the State. Sweet-corn ears are 50 percent infested and the larvae are feeding on the tassels of late-planted field corn. Many larvae are full grown and are leaving the corn.

Utah. G. F. Knowlton (July 22): Corn ear worms are now beginning to attack sweet corn at Logan. Worms are moderately abundant in tomato fruits in Utah County. The largest caterpillars are now one-third grown.

STALK BORER (Papaipema nebris nitela Guen.).

New York. C. R. Crosby (July 11): Specimens received from Massena, where they were attacking tomato plants.

Indiana. J. J. Davis (July 24): The stalk borer was reported damaging sweet corn at Campbellsburg on July 8. This is the only authentic report to date.

Kentucky. W. A. Price (July 29): The common stalk borer has been the cause of many complaints by flower and vegetable growers.

Kansas. H. R. Bryson (July 27): Common stalk borer reported doing some local injury to corn at Lebanon.

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Connecticut. N. Turner (July 22): Pupation is general. In early sweet corn on one farm from 60 to 75 percent of the ears were infested. The infestation in Hartford County does not seem quite as heavy as last year, although no figures are available. Damage has increased in the southwestern part of the State. Borers are more abundant in the northwestern section but are not causing much damage as yet.

New York. N. Y. State Coll. Agr. News Letter (July 15): The corn borer is working on the tassels of early sweet corn in Suffolk County, but

was not observed in destructive numbers on potatoes, as occurred last year around the Southold area. The borer is doing considerable damage in Nassau County.

Virginia. H. G. Walker and L. D. Anderson (July 26): About 80 percent of the larvae placed in an outside hibernation screen cage last fall at Onley, Accomac County, completed their development and emerged as adults this spring. Pupation began the latter part of April and several moths had emerged by May 8. On May 15 these moths began laying eggs which hatched on May 27. Larvae hatched on June 6 pupated on July 3, proving that the two-generation form is the one present here. The first moths of the second generation emerged in our breeding cages on July 10 and began laying eggs on July 13. Field observations indicated that the borer completed its life history as early or earlier in the field than in our cages.

SOUTHERN CORN STALK BORER (Diatraea crambidoides Grote)

Maryland. E. N. Cory (July 23): The southern corn stalk borer is attacking corn at Leonardtown.

Virginia. H. G. Walker and L. D. Anderson (July 26): The larger corn stalk borer is very abundant and many fields of corn around Norfolk are being injured.

Alabama. J. M. Robinson (July 20): The larger corn stalk borer is moderately abundant at Fairfax, Attalla, and Auburn.

LESSER CORN STALK BORER (Elasmopalpus lignosellus Zell.)

Maryland. E. N. Cory (July 24): Lesser corn stalk borer attacking corn at Westminster.

Alabama. J. M. Robinson (July 20): The lesser corn stalk borer was reported as attacking peanut vines in Houston County, as well as being moderately abundant on corn in the southeastern part of the State.

SOUTHERN CORN ROOT WORM (Diabrotica duodecimpunctata Fab.)

Ohio. T. H. Parks (July 25): Corn root worm larvae have been causing injury to corn in a field in Licking County. Some of the plants have fallen over as a result of the feeding.

Illinois. W. P. Flint (July 24): The southern corn root worm has caused an enormous amount of damage throughout the west-central counties of Illinois. Beetles were unusually abundant in the spring, and many fields of corn in that section are now virtually destroyed.

Kentucky. W. A. Price (July 29): The southern corn root worm has been more destructive to corn than usual.

Missouri. L. Haseman (July 22): The southern corn root worm has been doing much damage to corn during the past 2 or 3 weeks. The beetles have been injuring late-planted cucumbers and squashes in central Missouri.

CORN SILK BEETLES (Luperodes spp.)

Alabama. J. M. Robinson (July 20): The corn silk beetle L. davisi Leng was active on corn silks and cotton leaves in Covington and Geneva Counties.

Mississippi. C. Lyle (July 23): Specimens of L. varicornis Lec., reported as injuring young corn, were received from Puckett, in Rankin County, and inspector N. D. Pects states that serious injury has occurred in Lincoln County.

CLOVER AND ALFALFA

ALFALFA WEEVIL (Hypera postica Gyll.)

General. G. I. Reeves (July): In the course of our scouting operations in June, the alfalfa weevil was found in Sioux and Scotts Bluff Counties, Nebr.; Montezuma County, Colo.; Kane County, Utah; Clark County, Nev.; Coconino County, Ariz.; Malheur, Baker, and Union Counties, Oreg.; and in Mendocino County, Calif.

Utah. C. J. Sorenson (July 20): The alfalfa weevil is moderately abundant in Juab, Millard, Box Elder, and Cache Counties.

California. A. E. Michelbacher (July 22): Through the infested area of lowland in central California the larvae of the alfalfa weevil can be collected easily. On July 18 the numbers of larvae collected per 100 sweeps of an insect net ran as high as 75. Parasitization by Bathyplectes curculionis Thoms. has fallen off rather rapidly. At Pleasanton on July 10 about 10 percent and at Niles 13 percent of the large larvae were parasitized. No infested larvae of the alfalfa weevil were found in the San Joaquin Valley.

PLANT BUGS (Lygus elisus Van D.)

Utah. C. J. Sorenson (July 20): Lygus elisus Van D. and var. hesperius Knight are moderately abundant over the entire State, chiefly in alfalfa fields.

ALFALFA LOOPER (Autographa californica Speyer)

Wyoming. C. L. Corkins (July 9): We are now having considerable difficulty with the alfalfa semilooper in Park County. Following the cutting of alfalfa, these worms are migrating into bean fields, where damage in some instances has been severe before control measures could be started.

Oregon. D. C. Mote (July): Newly hatched larvae of the second generation are occurring in Willamette Valley. First-brood worms injured beans, corn, squash, and seedling alfalfa.

F R U I T I N S E C T S

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

New York. P. J. Parrott (July 23): The codling moth is moderately abundant about Geneva, and is very abundant in Niagara, Orleans, and Monroe Counties.

N. Y. State Coll. Agr. News Letter (July 22): Codling moth injury is becoming more noticeable in the orchards in western New York.

Delaware. L. A. Stearns (July 23): There were two peaks of activity of spring-brood moths as indicated by bait pans--May 28-29 and June 17-18. First-brood attack was considerably lighter than usual. First first-brood moths appeared on July 8. No serious second-brood injury reported as yet.

Georgia. C. H. Alden (July 22): Injury to apples by first-brood worms is becoming more abundant at Cornelia and Thomaston but is not as heavy as in 1934. Broods are now overlapping, so that continuous fresh stings are being noted.

Ohio. T. H. Parks (July 25): Growers report less injury than usual from first-brood larvae. Well-sprayed orchards show very few codling moth blemishes. Bait pans are not catching many moths.

J. S. Houser (July 23): First adults of summer brood emerged at Wooster on July 23.

Indiana. L. F. Steiner (July 23): The effect of cool, rainy weather on the amount of injury by first-brood larvae is well illustrated at Bicknell. In 1934 the first pick-up of drop fruit early in June averaged 600 successful entrances per tree and by harvest time trees that had had intensive spraying produced an average of 3,500 worms each. Despite a larger crop this season, fewer and less thorough spray applications than in 1934, and a lighter residue load, drop fruits are so scarce that no pick-up had been justified. Worm entrances are almost impossible to find, yet stings are fairly abundant. It is very evident that the vitality of first-brood larvae this season was much less, when they attempted entrance, than in 1934 and that considerably lighter deposits of poison were needed to effect the same degree of control.

D. W. Hamilton (July 21): At Orleans practically all adult activity of the spring brood had ceased by July 2. First-brood larvae

began pupating under bands between June 26 and July 3. Daily captures in light and bait traps began picking up the night of July 16, indicating that first-brood adults were emerging in the orchard.

Illinois. W. P. Flint (July 24): Codling moths continue to be scarce in most areas but there is a distinct increase in the infestation.

Michigan. R. Hutson (July 11): The first-brood codling moth has been very late and straggling in its appearance. Flight peaks occurred on June 22 in Berrien County; on July 1 at Hartford, in Van Buren County; and on July 2 at Mason, in Ingham County.

Wisconsin. C. L. Fluke (July 22): First brood very light at Madison; maximum flight of second brood not expected until the second or third week of August.

Missouri. L. Haseman (July 22): The unusual season spread the spring brood of moths in southern Missouri over a 2-month period and in central and northern Missouri emergence was delayed nearly 3 weeks. However, few of the early moths in southern Missouri succeeded in leaving offspring. As a result, second-brood moths all over the State are appearing uniformly in two bunches. The first bunch emerged between July 15 and 20 and the second and probably the larger bunch is expected between July 25 and early August. Generally speaking, spray control, combined with the weather, has been very effective against first-brood worms.

Arkansas. D. Isely (July 20): The codling moth infestation is later and lighter than it has been since 1928.

Oklahoma. F. E. Whitehead (July 22): The codling moth is present in about its usual numbers, taking a large toll of the apple crop.

Washington. E. J. Newcomer (July 25): Moths of the first brood began emerging at Yakima about July 12. This is 3 weeks later than in 1934. The infestation is lighter this year than last, owing to continued cool weather during May and June.

Oregon. D. C. Mote (July): First-brood moths are not out yet. Highest infestation for several years.

California. S. Lockwood (July 24): Pear growers in the Sacramento River area below the City of Sacramento are receiving more loss from the codling moth this year than for many years.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

Connecticut. P. Garman (July 22): Flies emerging in fair numbers. Prospects of a heavy-to-moderate infestation.

New York. P. J. Chapman (July 22): The emergence of flies in the Hudson

Valley is later than in 1933 and 1934. Indications are that the peak of emergence had not been reached up to and including July 19, but should occur by July 24-26 in that area. During the past two seasons the peak has occurred approximately from July 15 to 17.

New Jersey. M. Kisliuk, Jr., and E. Kostal (July 8): The first adult was observed on an apple leaf at Morganville on July 2.

Michigan. R. Hutson (July 11): Adults were captured at Lawton and South Haven on July 7, and at Elk Rapids on July 9.

Wisconsin. C. L. Fluke (July 22): The first adult emerged at Gays Mills July 15, about 10 days later than the average date in previous years.

APPLE FLEA WEEVIL (Orchestes pallicornis Say)

Ohio. T. H. Parks (July 25): Many orchards have a great deal of flea weevil injury. Two orchards near Delaware now show very serious injury.

A SCARABAEID (Trichiotinus bibens Fab.)

North Carolina. C. H. Brannon (July): This species is causing considerable injury to apples in several mountain counties.

PEACH

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Connecticut. P. Garman (July 22): The plum curculio is less abundant than usual.

Delaware. L. A. Stearns (July 23): Maximum emergence of first-brood adults July 8; about 25 percent of dissected females contain fully developed eggs; the usual partial second brood will probably develop in southern Delaware.

Virginia. W. J. Schoene (July 23): During the past few weeks adults have been found in unusual numbers in peach orchards in the Roanoke section. Some of the females were found to contain fully developed eggs.

Georgia. O. I. Snapp (July 20): The very dry weather at Fort Valley during the last month prevented the new beetles from depositing many eggs, and, as a result, the peach crop was harvested without much damage from second-brood larvae. An unusually heavy emergence of first-generation adults occurred this year and the peach crop would have encountered a serious second brood had the weather been normal. There is now an unusually large population of first-generation adults in peach orchards and, since these have not deposited many eggs this year, a heavy early infestation is predicted for 1936.

C. H. Alden (July): Some orchards at Thomaston showed infestations as high as 25 percent at harvest time, while others ran as low as 3 percent. Fruit has not yet been harvested at Cornelia but so far the infestation is running less than 5 percent in Georgia Belle peaches.

Mississippi. C. Lyle (July 23): Very severe damage to peaches ripening in July has been reported from practically all sections of Mississippi.

Missouri. L. Haseman (July 22): This pest was slow in showing up, but recently many plums and peaches have been showing nearly mature larvae.

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut. P. Garman (July 22): The first generation is unusually scarce; second generation much delayed, and scarce in most orchards of the State.

Delaware. L. A. Stearns (July 23): Parasitization of first-brood twig-infesting larvae shows a decline approximating 30 percent from that of 1934. Second-brood twig-infesting larvae are now practically mature. Injury has increased, owing to lower parasitization, and considerable infestation of peaches and apples by later broods seems probable.

South Carolina. W. C. Nettles (July 18): The oriental fruit moth is below normal in destructiveness.

Georgia. C. H. Alden (July 22): The fruit moth has not been a factor this year at Cornelia and Thomaston. Fruit scored in central Georgia showed about 2 percent infestation, as compared with 18 percent in 1934.

Indiana. L. F. Steiner (July 23): More adults have been coming to codling moth traps during the past week than any previous week this season.

Illinois. W. P. Flint (July 24): The oriental fruit moth is more abundant than in any year for the last 3, and large numbers are now going into peaches.

Tennessee. G. M. Bentley (July 22): The third brood of the oriental fruit moth is making its appearance. The situation is generally bad over the State.

Mississippi. C. Lyle (July 23): Many complaints of the oriental peach moth have been received during the month. All plant board inspectors are reporting serious injury to peach twigs.

PEACH BORER (Aegeria exitiosa Say)

Virginia. W. F. Turner (July 19): The peach tree borer is extremely abundant and obviously injuring the trees at Crozet. Three full-grown borers were

found in one 6-inch section of root ½ inch thick, about 2½ feet from the trunk. From 10 to 12 full-grown borers were found in many trees. One tree had 17 borers.

Georgia. O. I. Snapp (July 20): Pupation is beginning generally in commercial peach orchards around Fort Valley. Twenty-nine cocoons were taken during an examination of 100 trees on July 18.

Indiana. J. J. Davis (July 24): The peach tree borer was reported attacking peach at Mishawaka early in July.

PEACH TWIG BORER (Anarsia lineatella Zell.)

Utah. C. J. Sorenson (July 1): Specimens collected at Farmington in June.

California. H. C. Donohoe (July 1): Apricots picked in an orchard at Orland in which no control was practiced this spring were examined on June 24 while being cut for drying. Over 50 percent of the fruits were infested by the peach twig borer.

GREEN STINK BUG (Acrosternum hilaris Say)

California. S. Lockwood (July 24): In the last 3 weeks the southern half of the San Joaquin Valley has been overrun with plant bugs. These have for the most part been A. hilaris, followed by much smaller numbers of Chlorochroa sayi Stahl and by even fewer Thyanta custator Fab. Considerable damage has been done to canning peaches in some rather small areas. In one section between 40 and 50 acres of peaches have been absolutely ruined and the fruit will not be picked. Reports from other areas state that these insects are quite numerous in cotton fields, where they are causing the young squares to drop, and are also puncturing cotton leaves.

PLANT BUGS (Lygus spp.)

Connecticut. P. Garman (July 22): Some orchards severely damaged, particularly those with a light set of fruit; damage most severe in Glastonbury district, Hartford County.

PEAR

PEAR PSYLLA (Psyllia pyricola Foerst.)

Connecticut. P. Garman (July 22): Pear psylla abundance is the same as last month in New Haven County.

New York. N. Y. State Coll. Agr. News Letter (July 22): The pear psylla is causing serious damage in some orchards in western New York.

CHERRY

CHERRY FRUIT FLY (Rhagoletis cingulata Loew)

Michigan. R. Hutson (July 11): The white-banded cherry fruit fly appeared at Traverse City on July 2 and at Elk Rapids on July 9.

Oregon. D. C. Mote (July): R. cingulata emergence, June 3; oviposition, June 13; hatching, July 11, in the field.

CHERRY LEAF BEETLE (Galerucella cavicollis Lec.)

Maryland. E. N. Cory (July 24): The cherry leaf beetle has been reported from two counties, Garrett and Allegany. (Det. by H. S. Barber.)

West Virginia. F. W. Craig (August 1): Specimens were sent in from Huntington, in Cabell County, and from Pocahontas County.

PEAR SLUG (Eriocampoides limacina Retz.)

New York. C. R. Crosby (July 10): Specimens received from Lima, where they were attacking cherry.

N. Y. State Coll. Agr. News Letter (July): After several years' vacation, the pear slug is skeletonizing neglected cherry trees and is working some on pear in Monroe County. It was also noted on young unsprayed cherry trees in Niagara County.

Indiana. J. J. Davis (July 24): Cherry and pear slug reported as skeletonizing pear and cherry foliage at Tipton and Michigan City the last of June. The infestation is general, at least in the northern half of the State.

DEWBERRY

BOXELDER BUG (Leptocoris trivittatus Say)

Utah. G. F. Knowlton (July 19): Boxelder bugs were found to be feeding on ripe dewberry fruits at Granger, Salt Lake County.

BLUEBERRY

BLUEBERRY STEM BORER (Oberea myops Hald.)

North Carolina. C. H. Brannon (July 29): This species is attacking commercial plantings of blueberries in Pender County, causing serious damage to branches and twigs. (Det. by A. G. Boving.)

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

Delaware. L. A. Stearns (July 23): Infestation subnormal; usual grape leafhopper spray in early July omitted in most vineyards.

Michigan. R. Hutson (July 3): A peak in the hatching of the grape leafhopper occurred July 3 in the grape region about Paw Paw, Van Buren County.

Idaho. R. W. Haegele (July 22): The grape leafhopper is injuring grapes in Canyon County.

Utah. G. F. Knowlton (July 19): Grape leafhoppers have destroyed 90 percent of the foliage on Virginia creeper bushes at one place at Lake View, Utah County.

GRAPE ROOT WORM (Fidia viticida Walsh)

Delaware. L. A. Stearns (July 1): Injury to grape reported and specimens received from Felton.

CURRANT

CURRANT APHID (Myzus ribis L.)

South Dakota. H. C. Severin (July 22): The currant aphid is unusually abundant this year. This pest has actually been responsible for defoliating currant bushes for the first time to my knowledge in South Dakota.

PECAN

PECAN BUDMOTH (Gretchena bolliana Sling.)

Mississippi. C. Lyle (July 23): Injury due to the pecan budmoth from Hernando on June 28 and from New Albany on July 20 has been reported.

Arkansas. P. H. Millar (July 13): I am enclosing a larva and a pupa taken from black walnut at Leachville yesterday. These were attacking the nuts principally at the points where two nuts touched each other. Both pupae and larvae were exposed by separating the nuts from each other. The larvae were apparently feeding on the green hulls of the nuts. (Det. as Gretchena sp., presumably bolliana. C. Heinrich.)

PECAN LEAF CASE BEARER (Acrobasis juglandis LeB.)

Connecticut. E. P. Felt (July 24): The walnut case bearer (A. juglandis) was reported as very abundant at Orange.

North Carolina. R. W. Leiby (July 18): Rather severe damage was inflicted this spring to pecan buds and twigs by the leaf case bearer at Elizabeth City in the largest orchard in the State. The summer work of larvae on the foliage is now beginning to appear.

A SCARABAEID (Pachystethus marginata Fab.)

Mississippi. H. Gladney (July 23): These beetles were practically defoliating 5 acres of young pecan trees in Jackson County early in July. Such severe injury had not been noticed in previous years.

PECAN APHIDS (Monellia spp.)

Mississippi. J. P. Kislanko.(July 23): Pecan trees in lower Perry County were heavily infested with pecan aphids, M. costalis Fitch and M. nigropunctata Granovsky on July 17.

CITRUS

FRUIT FLIES (Anastrepha spp.)

Texas. N. O. Berry (July 26): Within the past 2 weeks 1,533 specimens were collected. Only 1 adult A. ludens Loew was taken in Matamoros, Mexico. Trapping of the other species of fruit flies ordinarily taken decidedly declined. There were 61 A. pallens Coq., 4 A. serpentina Wied., and 4 A. fraterculus auct. (not Wied.) taken on the American side of the Rio Grande. Peaches arriving in Matamoros were heavily infested with larvae identified as Anastrepha sp. (not ludens).

TRUCK-CROP INSECTS

ASIATIC GARDEN BEETLE (Autoserica castanea Arrow)

General. C. H. Hadley (July 30): The Asiatic garden beetle is unusually abundant and destructive in the suburban areas around New York City, both on Long Island and in New Jersey. In addition to feeding on such ornamental plants as asters, chrysanthemums, and dahlias, feeding injury has been heavy in vegetable gardens on beets, carrots, cabbage, peppers, and turnips.

CARROT BEETLE (Ligyrus gibbosus DeG.)

Indiana. J. J. Davis (July 24): Adult carrot beetles were reported from Goshen on June 26 and from La Porte on July 6. They were attacking the roots and underground stems of flower-garden plants, sunflower and marigold being specifically mentioned.

Michigan. R. Hutson (July 11): The carrot beetle has been sent in from Davidson, Flint, Nashville, Ann Arbor, Kalamazoo, Battle Creek, and Lansing.

Missouri. L. Haseman (July 22): This species has continued to appear in unusual numbers throughout most of July.

GARDEN WEBWORM (Loxostege similalis Guen.)

Ohio. B. J. Landis (July 20): The garden webworm was present on lambsquarters and corn on July 16.

Nebraska. M. H. Swenk (July 15): A Frontier County correspondent reported that the peas, beans, beets, and other garden truck was being destroyed by garden webworms.

Kansas. H. R. Bryson (July 27): The garden webworm was reported on July 18 as doing serious injury to leaves of corn near Wakarusa.

TARNISHED PLANT BUG (Lygus pratensis L.)

Indiana. J. J. Davis (July 24): The tarnished plant bug has been abundant since the last of June in northern Indiana, attacking celery and potato. According to G. E. Gould, weediness of fields and surroundings is largely, if not entirely, responsible for the heavy infestations.

Missouri. L. Haseman (July 22): The tarnished plant bug is unusually abundant at this time, attacking flowers and most crops.

Utah. G. F. Knowlton (June 23): Tarnished plant bugs are causing potato tops to wilt at Roy.

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

Florida. J. R. Watson (July 22): The leaf-footed bug seems to be unusually abundant this year.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

Ohio. B. J. Landis (July 20): First-generation adults were numerous, feeding and ovipositing on potato, spring groundcherry, matrimony vine, and tobacco.

Indiana. J. J. Davis (July 24): Adults had destroyed 30 acres of tomatoes at Vincennes by July 5, and were expected to do more damage, as the insecticides used had not given satisfactory control.

Wisconsin. E. L. Chambers (July): The Colorado potato beetle, until the past few years very abundant but scarcely reported last year as doing any serious injury, is again on the increase and requires much attention to prevent crop damage to potatoes and tomatoes in certain sections of the State.

Minnesota. A. G. Ruggles and C. E. Mickel (July 23): The Colorado potato beetle is moderately abundant.

North Dakota. J. A. Munro (July 15): The Colorado potato beetle is moderately abundant in Bottineau and Cass Counties.

South Dakota. H. J. Severin (July 22): The Colorado potato beetle has not been troublesome for years, but apparently is building up its numbers again. Injury is severe in spots.

TOMATO PINWORM (Gnorimoschema lycopersicella Busck)

Virginia. H. G. Walker and L. D. Anderson (July 26): Leaf-mining larvae were collected in tomato leaves growing in a greenhouse at Norfolk, and in tomato and potato leaves growing in a field nearby. (Det. by C. Heinrich.)

California. J. C. Elmore (July 18): At La Mesa one field was generally infested in both leaves and fruit. At El Cajon the main winter crop was just going in, but an early garden crop was found to be heavily infested, largely in the leaf-mining and folding condition. No infestations were found at Chula Vista. Severe commercial damage was reported on this date in 1934 in all of the tomato-growing districts mentioned above. In Peter's Canyon, the pinworm is common on the foliage of tomatoes but no injury to the fruit was observed. Less damage than last year is indicated.

TOMATO WORMS (Phlegethontius spp.)

New York. N. Y. State Coll. Agr. News Letter (July): Tomato worms have made their appearance in Suffolk County.

Virginia. H. G. Walker and L. D. Anderson (July 26): The tomato hornworm has been very abundant in many tomato fields on the Eastern Shore of Virginia, the damage ranging from practically no injury in some fields to almost complete destruction of the crop in others.

Ohio. B. J. Landis (July 14): Eggs and young larvae of the tomato hornworm have appeared on tomato, jimson, and tobacco.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Connecticut. N. Turner (July 22): Tipburn appeared on potatoes on July 15 as a result of leafhopper attacks.

Iowa. H. E. Jaques (July 22): The potato leafhopper is very abundant in many regions.

POTATO APHID (Illinoia solanifolii Ashm.)

New York. N. Y. State Coll. Agr. News Letter (July): Potato aphids have occurred in heavy infestations in several parts of Nassau County.

GREEN PEACH APHID (Myzus persicae Sulz.)

Nebraska. M. H. Swenk (June 30): The green peach aphid has reached outbreak abundance on tomato and potato plants in the area from Lancaster, Sarpy, and Burt Counties west to Wayne, Knox, Antelope, and Custer Counties.

BEANS

MEXICAN BEAN BEETLE (Epilachna corrupta Muls.)

New Hampshire. L. C. Glover (July 24): The Mexican bean beetle is very abundant throughout the infested area in the State this year. The pupae of the first generation were noted at Durham on July 21.

Connecticut. N. Turner (July 22): Although later than usual, the bean beetle has defoliated garden beans in many sections of the State. More abundant on lima beans than usual.

New York. M. Kisliuk, Jr., and E. Kostal (July 8): A few adults were noted on bean plants at Jamaica, L. I., on June 15.

Delaware. L. A. Stearns (July 23): Infestations severe where control measures have been omitted.

Maryland. E. N. Cory (July 24): The second brood is expected to be especially abundant.

Virginia. W. J. Schoene (July 23): The Mexican bean beetle has attracted more attention this season than for several years. The injury is spotted, but beans in many sections of the State have been severely injured.

Ohio. T. H. Parks (July 25): The Mexican bean beetle is very destructive this year.

N. F. Howard (July 23): The Mexican bean beetle is more abundant in central Ohio than ever before, and garden beans have been destroyed or

seriously damaged in many instances. For the first time in history the beetle has caused injury at Marion, where the abundance is not limited to city gardens but is also prevalent in farm gardens considerably removed from the city. H. C. Mason reports that at South Point all early beans not treated were defoliated.

Indiana. J. J. Davis (July 24): The Mexican bean beetle has been unusually abundant this year, reports of abundance and destruction coming in every day since July from all parts of the State. Damage is reported for the first time from Lake County in the extreme northwest corner of the State.

Iowa. C. J. Drake (July 29): An infestation of the Mexican bean beetle has been discovered near the central part of the State at Newton, Jasper County. (Det. by E. A. Chapin.)

Tennessee. G. M. Bentley (July 22): The Mexican bean beetle is generally very injurious over the State where treatments are not used.

J. Milan (July 19): The Mexican bean beetle is causing considerably more loss at Clarksville this season than for several years, even with the use of better and more effective insecticides.

Alabama. J. M. Robinson (July 20): The beetle continues to be very abundant over the infested part of Alabama. The eggs have continued to hatch through July owing to rains and cloudy weather.

Mississippi. C. Lyle (July 23): Numerous complaints have been received during July, although the beetle is apparently not attracting as much attention as in June.

Utah. G. F. Knowlton (July 30): The Mexican bean beetle is seriously damaging bean foliage at Moab and Castle Valley, in the southern part of Grand County.

WESTERN SPOTTED CUCUMBER BEETLE (Diabrotica soror Lec.)

Oregon. D. C. Mote (July): The western spotted cucumber beetle is more abundant on cucurbits in Willamette Valley than for several years. Indications are that canning beans will be injured.

A SCARABAEID (Strigoderma arboricola Fab.)

Maryland. E. N. Cory (July 24): This scarabaeid has been taken in a number of bean fields on the Eastern Shore.

A. W. Palmer (July 3): The beetles were collected at Cove Point, on the bay shore about 5 or 6 miles north of Solomon's Island. They were feeding voraciously on roses, coreopsis, hollyhock, and Japanese Iris.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Ohio. N. F. Howard (July 23): The potato leafhopper is doing considerable

damage to beans at South Point and is more abundant than at any time since we have been making observations there.

B. J. Landis (July 20): On July 1 the potato leafhopper was breeding in broad beans and doing considerable damage at Columbus.

A PENTATOMID (Euschistus servus Say)

Virginia. W. H. White (July 31): On July 26 we received from Burke, near Fairfax, specimens of lima beans injured by the feeding of a pentatomid and by a disease. The correspondent said that the damage was confined to the pods and that the leaves were not affected. H. G. Barber determined the insect as E. servus, and L. L. Harter, of the Bureau of Plant Industry, determined the disease as pod blight caused by Diaporthe phaseolorum. It is apparent that the damage to the pods by the pentatomids was closely associated with the prevalence of the fungus, but it is impossible to state definitely whether the severe reduction of the crop was due solely to the activities of the insect or to a combination of insect and fungus injury.

PEAS

PEA APHID (Illinoia pisi Kalt.)

New York. P. J. Parrott (July 23): The pea aphid was very abundant in western New York during the early part of July.

Wisconsin. E. L. Chambers (July): The pea aphid has been unusually abundant and has done serious damage in many pea-growing sections of the State, but has now practically disappeared, leaving both the early and late crops greatly reduced in value.

Oregon. D. C. Mote (July): Pea aphids increasing in abundance at Scappoose, noticeably on peas.

CABBAGE

IMPORTED CABBAGE WORM (Ascia rapae L.)

Ohio. T. H. Parks (July 25): The cabbage worm is more abundant than usual on cabbage near Cleveland.

N. F. Howard (July 23): The cabbage worm is becoming very abundant in Sandusky County and growers are sufficiently alarmed to inquire about control measures. This is quite the reverse of the situation a few weeks ago.

B. J. Landis (July 20): Extremely numerous at Columbus on kale, broccoli, collards, rape, and cabbage.

Indiana. J. J. Davis (July 24): The cabbage worm has been unusually abundant in many sections of the State.

Minnesota. A. G. Ruggles and C. E. Mickel (July 23): The imported cabbage worm is very abundant.

Missouri. L. Haseman (July 22): During the first part of July cabbage worms were very abundant but lately have been less so.

Kansas. H. R. Bryson (July 27): Imported cabbage worms very abundant and destructive at Manhattan, Moundridge, Blaine, and Melvern.

Utah. G. F. Knowlton (July 19): Cabbage worms are damaging cabbage wherever observed in northern Utah.

CABBAGE LOOPER (Autographa brassicae Riley)

South Dakota. H. C. Severin (July 22): The cabbage looper has become exceedingly abundant and is doing much damage in gardens.

Ohio. T. H. Parks (July 25): This caterpillar is seriously abundant on cabbage at Columbus.

CABBAGE MAGGOT (Hylemyia brassicae Bouche)

Indiana. J. J. Davis (July 24): The cabbage maggot was reported to be damaging cabbage at Bourbon on July 16.

CABBAGE APHID (Brevicoryne brassicae L.)

South Dakota. H. C. Severin (July): The cabbage aphid is more abundant than usual, attacking red cabbage especially.

Nebraska. M. H. Swenk (June 15 to 30): The cabbage aphid was abundant and destructive to cabbage and radish from June 19 to 24, especially in northeastern Nebraska from Cass and Dodge Counties northwest to Knox and Antelope Counties.

Utah. G. F. Knowlton (July 10): Cabbage aphids have killed 10 percent of the cabbage plants in one field, and the remainder are seriously injured.

MELONS

PICKLE WORMS (Diaphania spp.)

Florida. J. R. Watson (July 22): Complaints were received from Lake County that D. nitidalis Stoll and D. hyalinata L. attacked watermelons, doing appreciable damage.

Mississippi. C. Lyle (July 23): General complaints of pickle worms have been received. A very heavy infestation in a field of cantaloups at State College was observed yesterday.

STRIPED CUCUMBER BEETLE (Diabrotica vittata Fab.)

Connecticut. N. Turner (July 22): Late in June cucumber beetles were very abundant in many fields of squash. One grower reported more trouble than usual.

New York. P. J. Parrott (July 23): Striped cucumber beetles are numerous.

Ohio. B. J. Landis (July 20): Larvae of the striped cucumber beetle continued to cause noticeable damage to squash.

Indiana. J. J. Davis (July 24): Striped cucumber beetle has been very abundant everywhere and especially difficult to control because of the excessive rains.

Minnesota. A. G. Ruggles and C. E. Mickel (July 23): The striped cucumber beetle is very abundant.

South Dakota. H. C. Severin (July 22): The damage to cucurbits from the striped cucumber beetle is slightly above average, generally.

Nebraska. M. H. Swenk (July 1 to 15): The striped cucumber beetle was frequently reported, especially from the northeastern part of the State.

Kansas. H. R. Bryson (July 27): Striped cucumber beetles are very abundant and are causing considerable damage to late squashes and melons. Early planted cucumbers at Manhattan escaped serious injury.

MELON APHID (Aphis gossypii Glov.)

Indiana. J. J. Davis (July 24): The melon aphid was very abundant and destructive to melons and cucumbers in every section of Indiana during the past month.

Kansas. H. R. Bryson (July 27): Melon aphids reported abundant at Sylvia and Manhattan on July 25.

SQUASH

SQUASH BUG (Anasa tristis DeG.)

Ohio. B. J. Landis (July 20): Adults and eggs are moderately abundant at Columbus.

Nebraska. M. H. Swenk (July 15): The squash bug was first reported injuring pumpkin and squash vines in Buffalo County on June 26. It has given much trouble, especially in the area from Boone, Howard, and Hamilton Counties west to Lincoln County.

Oklahoma. F. E. Whitehead (July 22): Large numbers of squash bugs are present this summer and are doing considerable injury to squash.

Idaho. R. W. Haegele (July 22): Squash vines in the southwestern part of the State are generally infested.

Utah. G. F. Knowlton (July 22): Causing serious injury to squash plants in northern Utah.

CELERY

CARROT RUST FLY (Psila rosae Fab.)

New York. N. Y. State Coll. Agr. News Letter (July 9): The carrot rust fly worm is causing serious stunting to celery in early celery fields for the first time in history, according to growers.

ONIONS

ONION MAGGOT (Hylemyia antiqua Meig.)

New York. N. Y. State Coll. Agr. News Letter (July 22): Onion maggots are still causing considerable injury and losses.

Utah. G. F. Knowlton (July 10): Onion maggots are destroying approximately 10 percent of the seed onions in one patch at Logan.

SWEETPOTATO

SWEETPOTATO SAWFLY (Sterictiphora cellularis Say)

Delaware. L. A. Stearns (July 23): Severe, although localized, infestations in areas about Laurel and Seaford. Adults, eggs, and larvae present on July 5. Now in pupal stage.

STRAWBERRY

STRAWBERRY LEAF ROLLER (Ancylis comptana Froel.)

Ohio. E. W. Mendenhall (July 24): The strawberry leaf roller is very injurious on some plantations in Clark County.

Nebraska. M. H. Swenk (June 15 to 30): A complaint of injury to young strawberry plants was received on June 20 from Madison County.

Kansas. H. R. Bryson (July 27): Has been causing serious damage in a 3-acre strawberry patch near Valley Center.

Utah. G. F. Knowlton (July 19): Adults of the first generation are becoming abundant in some strawberry patches at Brigham, Providence, and Roy.

STRAWBERRY WEEVILS (Brachyrhinus spp.)

Idaho. R. W. Haegele (July 22): Infestation of strawberry root weevil found in strawberry fields in Adams County.

Utah. G. F. Knowlton (June 29): Strawberry weevils emerging in one strawberry patch at Logan are 10 percent B. ovatus L. and 90 percent B. rugosostriatus Goeze. The relative numbers of the two species vary greatly, but both are present in most patches.

PEPPER

PEPPER WEEVIL (Anthonomus eugenii Cano)

Florida. J. R. Watson (July 22): The pepper weevil is destroying all buds as rapidly as they are formed in the infested area in Manatee County. Abandoned fields are being destroyed by the growers.

California. J. C. Elmore (July 18): One light infestation of pepper weevil found at Santa Ana, Orange County. Other fields near Balsa, Talbert, and Huntington Beach were not infested.

BEETS

BEET LEAFHOPPER (Eutettix tenellus Bak.)

Colorado. W. A. Shands and O. A. Hills (July): At the end of June the beet leafhopper populations were very high in the Grand Valley and Delta-Montrose districts. Evidence of the curly-top disease began to appear early in June and by the last of June the percentage of plants affected ranged from 30 to 50 percent, although in general the injury was not serious.

Idaho. R. W. Haegele (July 22): The tomato plantings of southwestern Idaho have been almost entirely killed out by the blight caused by the beet leafhopper.

Utah. G. F. Knowlton (July 3): Curly top is becoming increasingly severe in the Weber-Davis area. Some fields at Hooper are more than 60 percent affected. Tomato fields have been plowed up at Kaysville and Layton. (July 11): Curly top continues to increase in abundance. Already serious losses of tomato plants have been sustained in many localities, with counts showing as high as 80 percent diseased. Injury to sugar beets is gradually increasing in many parts of northern Utah. (July 22): Curly top is taking from 15 to 20 percent of the beans in some patches at Tremonton, Garland, and Salem.

A FALSE CHINCH BUG (Nysius sp.)

California. J. C. Elmore (July 18): A false chinch bug was very numerous in two sugar beet fields near Huntington Beach. Severe leaf damage was noted on about 10 percent of the plants. Has not been observed before in Orange County.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula Fab.)

Tennessee. J. U. Gilmore (July 19): The first generation of flea beetles is now emerging and is causing considerable damage to half-grown tobacco at Clarksville. Infestations in many fields range from 15 to 20 beetles per plant.

A TOBACCO WORM (Phlegethontius sp.)

Tennessee. J. U. Gilmore and Joe Milam (July 19): The usual overwintering emergence of hornworm moths necessitated late June or early July dusting at Clarksville. The lack of rainfall in July has prevented the annual heavy July emergence, which normally produces the heavy August deposition of eggs. At present larvae of all sizes are very scarce.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

North Carolina. C. H. Brannon (July 29): July has been a month of frequent rains after the driest June in 42 years. As a result, the weevil infestation has increased rapidly in many sections. The infestation is still spotted, some sections having almost no infestation.

South Carolina. W. C. Nettles (July 13): The average infestation of cotton boll weevil over the State is a fraction over 10 percent on unpoisoned cotton.

Alabama. J. M. Robinson (July 20): The boll weevil has been active in southern and central Alabama during June and July. The first-generation adults have been active at Auburn for a week. The infestation has advanced from 10 to 15 percent. The boll weevil is also active in the northern part, but the percentage of infestation is not yet high enough to warrant dusting.

Mississippi. State Plant Bd. Weekly Cotton Insect Rpt. (July 29): Due to the decrease of squares in some sections and the increase of weevils generally, the infestation almost doubled during the past week, according to records made by inspectors on 84 farms in 17 counties. Clay Lyle, entomologist of the board, reports that an average infestation of 30 percent was found on the 82 infested farms, as compared with 16 percent last week and 37 percent on this date last year. Showers in the Delta were favorable for weevil increase.

Arkansas. D. Isely (July 20): The cotton boll weevil is more abundant than usual at this time of the year.

Oklahoma. C. F. Stiles (July 20): Boll weevil infestation is gaining slightly throughout the southeastern part of the State. The average infestation of the 17 fields examined during the week ending July 20 was 18.33 percent.

Texas. R. W. Harned (July 30): In Calhoun County damage from boll weevils is diminishing, owing chiefly to the arsenicals that have been applied to the cotton for leaf worm control.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Mississippi. State Plant Bd. Weekly Cotton Insect Rpt. (July 22): The first cotton leaf worm was found on July 11 in Washington County. This worm became an adult moth on July 20. (July 29): Leaf worms were reported from two farms in George County, and as they were almost grown, other infestations are expected at any time.

Arkansas. D. Isely (July 18): A light and scattered infestation of the cotton leaf worm was observed in Crawford County, the northwestern cotton-growing county in Arkansas. The larvae were in all stages and one pupa was also collected.

Texas. R. W. Harned (July 30): Every acre of cotton in Calhoun County has been successfully dusted or sprayed for leaf worm control. Many farmers believe the infestation this year has been heavier than in any previous year in their experience. In other counties in this section of Texas many cotton fields have been entirely stripped of foliage and the worms are eating the squares and stems.

CUTWORMS (Noctuidae)

Texas. A. J. Chapman, L. C. Fife, and H. S. Cavitt (July): Cutworms completely destroyed 26 acres of young cotton on a farm 5 miles west of Presidio. Larvae collected on May 23 were determined by C. Heinrich as "Feltia sp., possibly malefida Guen. lacking characteristic markings." Moths that emerged on June 18 were determined by F. H. Benjamin as F. malefida. These cutworms cut off the roots of young cotton plants just under the surface of the soil. No leaf injury was observed. Two species of dipterous parasites reared from this cutworm were identified by H. J. Reinhard, of the Texas Agricultural Experiment Station, as Bonnetia comta Fallen and Gonia longipulvilli Tothill.

Egypt. A. H. Rosenfeld (June 29): Cotton circles are at present very much upset by an unusually early and heavy attack of the cotton worm Prodenia sp., but, after last year's experience, I think the second-generation eggs have been pretty well eliminated from cotton by hand picking. The Ministry of Agriculture inspectors are offering about 15 cents per pound for cocoons collected from the berseem (Alexandria clover) fields, where the early generations mostly breed. The attack, as usual, is largely confined to the Delta.

PINK BOLL WORM (Pectinophora gossypiella Saund.)

Texas. G. G. Harris (June 30): The first worms were found in the field at Castolon on June 17, whereas last year the first field worms were not found until August 4. In the Presidio district the first field worm was found on June 20. The trap-plot cotton in the Castolon and Presidio districts of the Big Bend of Texas has been blooming profusely during June. Because of cool weather retarding the plants in the early spring a much smaller number of

blooms has been produced this year than last; however, the number of worms collected has been larger. During the month 121,449 blooms were produced and 11,061 pink boll worms found, while for the same month last year 227,566 blooms and 3,503 pink boll worms were found. The infestation in the plots increased rapidly, with the peak of infestation being reached for the week ending June 20, after which it dropped about as rapidly as it had increased.

Bahama Islands. R. E. McDonald (June 24): V. Curtis and L. F. Curl made a survey of the Bahama Islands from June 11 to 22 for the purpose of locating infestations of the pink boll worm on wild or cultivated cotton. Only part of the Islands were visited and infestations were found on only two. The percentages of infestation of the bolls examined at various points are as follows: Berry Island--Little Harbor Key, 19; Holmes Key, 37.68; Frazier Hog Key, 62.35; New Providence Island--Delaport Point, 83; Wolf Road, Nassau, 66.66; Grand Bahama Island, 0; Grand Keys, 0; Great Sale Key, 0; Great Abaco, 0; Mores Island, 0.

COTTON APHID (Aphis gossypii Glov.)

North Carolina. C. H. Brannon (July): Heavy infestation on cotton reported from Hyde County.

South Carolina. W. C. Nettles (July 18): Leaf aphid on cotton above normal in the State.

Mississippi. C. Lyle (July 23): A complaint of severe damage by the cotton aphid was received from Webster County on July 15 and inspector N. D. Peets reports serious injury in many fields in Copiah and Lincoln Counties. It is also reported in Rankin and George Counties.

Texas. R. W. Harned (July 30): The cotton aphid has increased and, with continued applications of calcium arsenate killing its enemies, may be injurious in the near future.

COTTON FLEA HOPPER (Psallus seriatus Reut.)

South Carolina. J. G. Watts (July 18): Less abundant than last year.

Mississippi. State Plant Bd. Weekly Cotton Insect Rpt. (July 8): Some complaints of flea hopper damage have been reported from Marshall, Tate, and Washington Counties, but there is little indication of a general infestation.

Arkansas. D. Isely (July 20): Injury by the cotton flea hopper attacking cotton has continued later than usual.

TARNISHED PLANT BUG (Lygus pratensis L.)

Arkansas. D. Isely (July 20): Injury by the tarnished plant bug attacking cotton has continued later than usual.

GRAPE COLASPIS (Colaspis brunnea Fab.)

Mississippi. C. Lyle and assistants (July 23): The grape colaspis is reported to be unusually abundant on cotton in the Delta. A correspondent at Hattiesburg sent in specimens with the complaint that they were damaging vegetables.

COMMON RED SPIDER (Tetranychus telarius L.)

North Carolina. C. H. Brannon (July 29): Red spiders on cotton are evident in many fields but the infestation is exceedingly light.

South Carolina. W. C. Nettles (July 18): Red spiders on cotton more widely prevalent than usual.

Mississippi. State Plant Bd. Weekly Cotton Insect Rpt. (July 29): Red spiders were reported causing some damage to cotton in Washington, Bolivar, and Sunflower Counties.

F O R E S T A N D S H A D E - T R E E I N S E C T S

OBLONG LEAF WEEVIL (Phyllobius oblongus L.)

New York. R. E. Horsey (July 22): I was much interested in the report of this insect in Ohio, noted in the last number of the Insect Pest Survey Bulletin. I was present at the discovery of this insect at Rochester in 1923. It was a very local infestation and did little damage, although the weevils were quite numerous on a couple of elms. Through a careful spraying at once in 1923, apparently all the weevils were destroyed. I have not seen or heard of one since. A visit to these trees on July 21, 1935, shows them to be in good health with no weevils present.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Maine. H. B. Peirson (July): Reported in Limerick, Cornish, Hiram, Baldwin, and many other areas, especially near Lincoln and Jonesport. Heavy infestations occur, defoliating thousands of acres of poplar and birch.

Vermont. J. V. Schaffner, Jr. (July 24): The owners of sugar-maple orchards in Bennington, Windsor, and Rutland Counties are very much concerned over the severe defoliation of the trees by the forest tent caterpillar. In Windham County several natural forest areas are severely infested. Collections of cocoons from four defoliated sugar-maple orchards, where the insect apparently has reached its peak, have given an average issuance of moths of only 9 percent and an average parasitization to date of 37 percent. In an area not completely defoliated, where the infestation possibly has not reached its peak, a collection of cocoons taken from the foliage of trees has produced a moth issuance of 45 percent and parasitization only 5½ percent.

New Hampshire. L. C. Glover (July 3): The forest tent caterpillar was very abundant in localized areas and apparently has increased generally throughout the State.

Connecticut. W. E. Britton (July 23): Common in the northwestern portion of the State, where it is feeding on maple and other deciduous trees.

Minnesota. A. G. Ruggles and C. E. Mickel (July 23): The forest tent caterpillar stripped leaves of poplar and birch over thousands of acres in northeastern Minnesota. It is a menace to the tourist trade. Also bad in Otter Tail County.

SATIN MOTH (Stilpnotia salicis L.)

Maine. H. B. Peirson (July): The satin moth was abundant on willows and poplar in June at South Portland and Harrison.

Massachusetts. J. V. Schaffner, Jr. (July 24): Egg deposition is reported as heavy in some localities, especially in the region of the original infestation at Medford and Malden.

Oregon. C. A. Cole (July 23): We have completed a satin moth survey and find the following counties infested: Benton, Clackamas, Linn, Marion, Multnomah, Polk, Washington, and Yamhill. With the exception of two clumps of Silver poplars located in the vicinity of Gervais, Marion County, no damage is being done. Larvae were found on Silver, Carolina, and Lombardy poplars. They seemed to prefer the Silver poplar.

CANKER WORM (Geometridae)

North Carolina. R. A. St. George and B. H. Wilford (June 9): On June 9 came across a 2-acre area of black oaks not far from Asheville which were being severely defoliated by the fall canker worm (Alsophila pometaria Harr.). The caterpillars were hanging by threads from many of the trees, which were completely stripped of foliage, and were also abundant on the ground along the highway. The trees in adjacent areas were only lightly attacked. Calosoma beetles were active on the heavily infested area. (C. Heinrich, who identified the material, stated that the outbreak is a more southern one than heretofore known.)

Ohio. E. W. Mendenhall (July 16): The spring canker worm (Paleacrita vernata Peck) is very plentiful on apple in western and northwestern Ohio.

Utah. G. F. Knowlton (June 7): Caterpillars are seriously damaging the foliage of boxelder, alder, and oak at Mill Creek.

Connecticut. W. E. Britton (July 23): Larvae of Ennomos subsignarius Hbn. were found feeding with canker worms in the northeastern part of the State. Swarms of the white moths were noticed around electric lights in Bridgeport, New Haven, and Waterbury the first week of July.

LIME-TREE LOOPER (Erannis tiliaria Harr.)

New York. L. O. Howard (July 22): Larvae were excessively abundant at Tannersville in June, hanging suspended by their threads and getting on everyone's clothes, just as the spring canker worms did in Ithaca when I was a boy.

GYPSY MOTH (Porthetria dispar L.)

New England. L. H. Worthley (July 29): According to observations by district inspectors during the larval period of the gypsy moth, there has been a heavy increase in infestation in the lumber-shipping districts of western Maine, central and northern New Hampshire, and central Massachusetts. A large amount of cut lumber piled in these sections will be exposed to the danger of becoming infested with gypsy moth egg clusters. At present gypsy moth larvae, pupae, adult moths, and egg clusters are to be found in the field. The first new gypsy moth egg clusters were noticed in Providence, R. I., on July 19; in Holyoke, Mass., on July 15; and in Chesterfield, N. H., on July 20.

New Hampshire. J. V. Schaffner, Jr. (July 24): In Hillsboro, Merrimack, and Rockingham Counties many woodland areas, totaling thousands of acres, are defoliated by the gypsy moth. Severe defoliation noted as far north as Andover in Merrimack County.

Massachusetts. J. V. Schaffner, Jr. (July 24): Extensive areas, involving several thousand acres of woodland, consisting principally of such favored foodplants as oak, gray birch, and poplar, were defoliated in the northern half of Worcester County, and in the eastern parts of Franklin and Hampshire Counties, east of the Connecticut River. This is the most extensive area ever defoliated in that part of the State. Several large areas of woodland in Barnstable County on Cape Cod were defoliated. With the exception of a few towns on Cape Cod the infestation in the eastern part of the State is very much reduced.

FALL WEBWORM (Hyphantria cunea Drury)

New York. N. Y. State Coll. Agr. News Letter (July 1): Fall webworms are showing up in Dutchess County.

Tennessee. G. M. Bentley (July 22): Generally bad over the State, attacking various shade and fruit trees.

Mississippi. C. Lyle (July 23): The fall webworm infestation is rather general over most of the State. The heaviest damage is occurring in the southern half.

BAGWORM (Thyridopteryx ephemeraeformis Haw.)

Connecticut. W. E. Britton (July 23): Street trees in one block in New Haven infested. Some trees defoliated, others partially defoliated. It is unusual for this insect to damage trees in Connecticut. All have now been sprayed.

Maryland. E. N. Cory (July 24): Bagworms exceedingly numerous.

Virginia. H. G. Walker and L. D. Anderson (July 26): Bagworms are moderately abundant around Norfolk.

South Carolina. F. Sherman (July 18): Reports indicate it to be above average in abundance.

Ohio. T. H. Parks (July 25): Bagworm more serious than usual on arborvitae. Larvae now about half grown.

Indiana. J. J. Davis (July 24): The bagworm has been quite general and destructive to arborvitae, hard maple, boxelder, and persimmon in many parts of the State from Lafayette south. At Lafayette the first hatched larvae were observed on July 12, when they were about a week old.

Illinois. W. P. Flint (July 24): Bagworms are much more abundant than usual in the central Illinois area.

Alabama. J. M. Robinson (July 20): Bagworms are continuing to attract attention in widely separated places in Alabama.

Mississippi. C. Lyle (July 23): The bagworm is undoubtedly causing the most severe damage in many years. Numerous complaints were received during June and hardly a day has passed in July without receiving specimens.

BOXELDER

BOXELDER APHID (Periphyllus negundinis Thos.)

Nebraska. M. H. Swenk (June 30): The boxelder aphid was reported infesting boxelder trees in Cheyenne County on June 24.

COTTONY MAPLE SCALE (Pulvinaria vitis L.)

Indiana. J. J. Davis (July 24): Cotton maple scale was reported as very abundant on maples at Elwood on July 20, the first report of abundance we have had for several years.

South Dakota. H. C. Severin (July): The cottony maple scale is very abundant on boxelder in De Smet.

CATALPA

CATALPA SPHINX (Ceratomia catalpae Bdv.)

Virginia. H. G. Walker and L. D. Anderson (July 26): The catalpa sphinx is defoliating many catalpas in the Norfolk area.

Ohio. E. W. Mendenhall (July 17): Larvae are quite injurious to Catalpa bungei and have defoliated many trees in southwestern Ohio.

Kentucky. W. A. Price (July 29): The catalpa sphinx has been very abundant in all sections of the State.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Massachusetts. J. V. Schaffner, Jr. (July 24): Severe browning of elm foliage has been noted in Arlington, Belmont, Newton, Weymouth, and Woburn. Some feeding was noted at Middleboro and North Attleboro.

Connecticut. W. E. Britton (July 23): This insect is prevalent in some localities and scarce in others.

Maryland. E. N. Cory (July 24): The imported elm leaf beetle has done considerable damage in several sections of the State.

North Carolina. R. W. Leiby (July 19): Chinese elm trees, as well as American elms, have been rather severely damaged in the eastern and central parts of the State.

Ohio. T. H. Parks (July 25): The elm leaf beetle is rapidly defoliating some elms in the south end of Columbus. Other complaints come from Springfield and Lebanon. Much spraying has been done in Columbus.

N. F. Howard (July 23): The first generation is pupating and a few new adults are about. Injury to trees in the north side of Columbus is apparent and more spraying of elms has been done than usual.

E. W. Mendenhall (July 17 and 18): The elm leaf beetle is very injurious to elms in Cincinnati.

Idaho. R. W. Haegele (July 22): Since my report of June 19, injury to elms has become very severe, practically all elms not sprayed being rapidly defoliated.

J. R. Douglass (July 13): While in Weiser yesterday I noticed elm trees badly defoliated.

Oregon. D. C. Mote (July): After 2 years of light infestation, this beetle is appearing in numbers and is causing damage at Corvallis.

Washington. E. J. Newcomer (July 25): This beetle has been in Yakima for several years, and has been gradually spreading. It is causing a great deal more damage than before and a concerted program of spraying will evidently have to be started next season.

MOURNING-CLOAK BUTTERFLY (Hamadryas antiopa L.)

Maine. H. B. Peirson (July): The spiny elm caterpillar was feeding on elm at South Portland on June 15.

New Hampshire. L. C. Glover (July 3): A local outbreak of the spiny elm caterpillar has been reported in Ashland.

OBLIQUE-BANDED LEAF ROLLER (Cacoecia rosaceana Harr.)

Nebraska. M. H. Swenk (July 1 to 15): During the first week in July the oblique-banded leaf roller was quite destructive to the foliage and fruit of the chokecherry and also to elm leaves in Box Butte County.

APHIDS (Aphiidae)

Iowa. C. N. Ainslie (July 31): Notwithstanding the heat and drought during the summer of 1934, various species of aphids multiplied and became a nuisance. Cars parked under elm trees in Sioux City were covered with honeydew. All sorts of herbs suffered. Before the end of the summar coccinellids multiplied and cleaned up most of the aphids. This spring the cold wet weather gave the aphids another chance to multiply and they appeared in devastating numbers. But it seems that the coccinellids had hibernated in unusual numbers and both they and the chrysopas have been busy so that now it is almost impossible to find an aphid anywhere in this region.

ELM COCKSCOMB GALL (Colopha ulmicola Fitch)

Delaware. L. A. Stearns (June 26): Injury reported and specimens received from Harrington.

Maryland. E. N. Cory (July 24): Cockscomb gall has been quite abundant on elms.

Ohio. T. H. Parks (July 25): Cockscomb gall on elms has been much more abundant this year.

Nebraska. M. H. Swenk (June 15 to 30): Reported injuring Chinese elm trees in Scotts Bluff County on June 27.

A LACEBUG (Corythucha pallida ulmi Osborn & Drake)

Connecticut. P. Wallace (July 23): Several street trees in Sharon had the foliage browned.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

New York. R. E. Horsey (July 22): Several elms more or less infested were seen during the month at Rochester. The scale is apparently more numerous this year, although no damage to the trees was noticed.

Ohio. J. S. Houser (July 23): Numerous specimens of this insect have been received during the past month from many sections of Ohio. The insect is much more abundant than at any previous time.

T. H. Parks (July 25): More than the usual number of complaints of damage to elms has been received. This insect was hatching at Columbus during the middle of June.

Indiana. J. J. Davis (July 24): European elm scale has been reported from a number of localities in northern Indiana. Apparently this scale has become a serious problem in some cities.

Wisconsin. E. L. Chambers (July): The European elm scale has been found in several new localities this summer and elm trees over large areas of these villages were found heavily infested for the first time.

LARCH

LARCH SAWFLY (*Lygaeonematus erichsonii* Htg.)

Wisconsin. E. L. Chambers (July): Tamarack in Door and Jefferson Counties were heavily defoliated by the larch sawfly during the past 2 weeks.

MAPLE

GREEN FRUIT WORM (*Grapholitha antennata* Walk.)

Maine. H. B. Peirson (July 1): The green maple worm is abundant and defoliating red and silver maples at Rockland and Bristol.

New Hampshire. L. C. Glover (July 3): A local outbreak of the green maple worm has been reported from Oxford. This insect has been feeding on elm, maple, and willow along the Connecticut River bank.

NORWAY MAPLE APHID (*Periphyllus lyropictus* Kess.)

Michigan. R. Hutson (July 11): The aphid is very abundant on Norway maple at Flint, Jackson, and Lansing.

Wisconsin. E. L. Chambers (July): The Norway maple aphid is unusually abundant this summer and many specimens have been sent in for identification because of heavy falling of foliage. This was due to unusual vegetative growth but the injury was attributed to aphids.

MOUNTAIN ASH

MOUNTAIN ASH SAWFLY (*Pristiphora banksi* Marl.)

Maine. H. B. Peirson (July): The mountain ash sawfly was abundant on Mount Desert Island and in the Rangeley district late in June.

OAK

A CARPENTER WORM (Prionoxystus macmurtrei Guer.)

Michigan. R. Hutson (July 11): Specimens of the lesser oak carpenter worm (P. macmurtrei) have been received from East Tawas. This is apparently a new record for this State.

OAK TWIG PRUNER (Hypermallus villosus Fab.)

New Hampshire. L. C. Glover (June 28): The first report of injury by the oak twig pruner was received on June 28.

A GALL WASP (Neuroterus majalis Bass.)

Massachusetts and Connecticut. E. P. Felt (July 24): The spring generation of this gall wasp has been especially abundant on oak in eastern Massachusetts and also in the vicinity of Stamford, Conn.

PINE

NANTUCKET PINE SHOOT MOTH (Rhyacionia frustrana Comst.)

Arkansas. P. H. Millar (May 23): I am enclosing pupae taken from the tips of pine seedlings (probably loblolly) found near Sheridan. (Det. by C. Heinrich.)

North Dakota. J. A. Munro (July 28): Infestation by the pine tip moth (Rhyacionia frustrana bushnelli Busck) is from moderate to light in ponderosa pine and light in jack and Scotch pine at Mandan.

A EUCOSMID (Enarmonia ratzeburgiana Sax.)

Maine. H. B. Peirson (July): Practically all terminals of white spruce at Rockland injured. Adults were emerging July 1.

SPRUCE

SPRUCE BUD SCALE (Physokermes piceae Schr.)

Wisconsin. E. L. Chambers (July 23): Norway and other spruces are being reported by nursery inspectors to be infested in spots in the nursery by the spruce bud scale, requiring summer application of contact sprays.

WILLOW

EUROPEAN WILLOW BEETLE (Plagiodera versicolora Laich.)

Massachusetts. J. V. Schaffner, Jr. (July 24): Both larvae and adults of this imported willow leaf beetle are now very plentiful in eastern Massachusetts.

A WEEVIL (Elleschus ephippiatus Say)

Rhode Island. E. P. Felt (July 24): This small willow weevil was reported as abundant and injurious to willow near Providence.

COTTONWOOD SCALE (Chionaspis ortholobis Comst.)

Nebraska. M. H. Swenk (June 15 to 30): Reported working on willow trees in Garden County on June 29.

I N S E C T S A F F E C T I N G G R E E N H O U S E A N D O R N A M E N T A L P L A N T S

A WEEVIL (Calomycterus setarius Roelofs)

Connecticut. W. E. Britton (July 23): This Japanese weevil was reported attacking chrysanthemum and other plants in a greenhouse at Sharon this year. It was first reported in this country from Yonkers, N. Y., in 1929 by A. J. Mutchler, of the American Museum of Natural History. In 1932 it injured iris and other plants at Lakeville. Sharon is only 4 or 5 miles from Lakeville. (Det. by B. H. Walden.)

Maryland. E. N. Cory (July 24): Literally thousands of these beetles invaded two houses, after having fed on a wide variety of plants--roses, milkweed, red clover, hollyhocks, Hemerocallis, redtop, ivy, marigold, and Pyrancantha--near the houses. The owner of the house at Towson said they had an infestation in 1934. (Det. by L. L. Buchanan.)

FOUR-LINED PLANT BUG (Poecilocapsus lineatus Fab.)

Connecticut. W. E. Britton (July 23): Considerable injury in some cases in Bridgeport and Hartford on chrysanthemum and dahlia.

Indiana. J. J. Davis (July 24): The four-lined plant bug was reported attacking flower-garden plants at South Bend on June 26. The specimens submitted were mature.

FERN SCALE (Hemichionaspis aspidistrae Sign.)

Maryland. E. N. Cory (July 24): Heavy infestation in a Baltimore greenhouse.

BOXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Labou.)

Maryland. E. N. Cory (July 9): The boxwood leaf miner is attacking boxwood at Govans.

Tennessee. G. M. Bentley (June 26): Serious damage by boxwood leaf miner at Bristol.

BOXWOOD PSYLLID (Psyllia buxi L.)

Maryland. E. N. Cory (June 28): Attacking boxwood at Westminster.

CRAPEMYRTLE

CRAPEMYRTLE APHID (Myzocallis kahawaluokalani Kirk.)

Mississippi. J. P. Kislanko (July 23): Crapemyrtles in Hattiesburg and lower Forrest County were being partially defoliated on July 20 by this aphid.

EUONYMUS

EUONYMUS SCALE (Chionaspis euonymi Comst.)

New York. R. E. Horsey (July 22): A very bad infestation on Euonymus radicans vegeta at Rochester was noted on July 22. The branches and leaves were, in most instances, covered with newly set scales. A common pest.

GLADIOLUS

GLADIOLUS THRIPS (Taeniothrips gladioli M. & S.)

Maryland. E. N. Cory (July 24): The gladiolus thrips is abundant.

Tennessee. G. M. Bentley (July 6): A heavy infestation is ruining the blossoms on a 1-acre block.

IRIS

IRIS BORER (Macronoctua onusta Grote)

Indiana. J. J. Davis (July 24): The iris borer was reported damaging iris at Noblesville on July 6.

LILIES

BULB MITE (Rhizoglyphus hyacinthi Bdv.)

Nebraska. M. H. Swenk (June 15 to 30): A Lancaster County correspondent complained of bulb mites infesting lily bulbs the last week in June.

MAGNOLIA

MAGNOLIA SCALE (Neolecanium cornuparvum Thro)

Maryland. E. N. Cory (July 24): The magnolia scale is attacking magnolia at Glyndon.

PITTOSPORUM

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

North Carolina. R. W. Leiby (July 20): The cottony-cushion scale is now present in destructive numbers on pittosporum in Wilmington, after a noticeable absence of damage for 6 years. During this period the Vedalia beetles (Rodolia cardinalis Muls.) that were colonized there succeeded in controlling the scale. Another colony of beetles will be established shortly.

ROSE

ROSE SAWFLY (Caliroa aethiops Fab.)

Connecticut. W. E. Britton (July 23): This or other sawflies have been prevalent on rose around New Haven; also received from Hartford.

A SCARABAEID (Trichiotinus piger Fab.)

Maryland. E. N. Cory (July 24): T. piger is attacking roses in Baltimore.

SPIREA

A BUCK MOTH (Hemileuca lucina Hy. Edw.)

Maine. H. B. Peirson (July 20): Abundant on Spiraea tomentosa at Alfred on July 20.

I N S E C T S A T T A C K I N G M A N A N D D O M E S T I C A N I M A L S

MAN

A LATHRIDIID (Coninomus constrictus Gyll.)

New York. E. A. Back (July 3): C. constrictus was captured in an office building in New York City on July 3 and was sent to me for identification. It was assumed that the insect was infesting the papers, but no evidence of damaged papers could be found. It is interesting to record the presence of this insect in an office building in New York City. (Det. by W. S. Fisher.)

FIELD CRICKET (Gryllus assimilis Fab.)

California. S. Lockwood (July 24): The winged form of the field cricket is occurring in great numbers in the lower Sacramento River Valley. Complaints have been received from Woodland, Yolo County, that they are causing considerable trouble around dwellings and business houses of that town.

CHIGGER (Trombicula irritans Riley)

Ohio. N. F. Howard (July 23): The chigger mite is more abundant in central and southern Ohio than at any time since the laboratory was established at Columbus in 1926. After a spring of more frequent rainfall than at any time since 1923, a relatively hot and dry spell ensued and during this time the mites reproduced in prodigious numbers.

Indiana. J. J. Davis (July 24): Chiggers were reported from Aurora on July 17 as being annoying.

Missouri. L. Haseman (July 22): The usual number of complaints about chiggers are being received, although the pest began late, owing to the cool, backward season.

BLACK WIDOW SPIDER (Latrodectus mactans Fab.)

Connecticut. W. E. Britton (July 23): A female was received on June 25 from Norwichtown. This makes 4 specimens recorded from Connecticut--2 from East Haddam and 1 from Killingworth. (Det. by B. J. Kaston.)

Florida. E. W. Berger and G. B. Merrill (July 22): Black widow spider occasionally seen among rocks, in wood piles, and in various other places at Gainesville and vicinity.

J. R. Watson (July 22): Following the result of newspaper publicity, a large number of black widow spiders was reported. One man said that he found six in a couple of weeks.

Kentucky. W. A. Price (July 29): Specimens have been received from Versailles, Stanton, Lexington, and Louisville.

South Dakota. H. C. Severin (July 22): Black widow spiders are being sent in frequently, but no complaints have been received from persons bitten.

Tennessee. G. M. Bentley (July 22): This spider has been sent in from different parts of the State. No serious injuries reported.

Mississippi. C. Lyle (July 23): Interest in the black widow spider has continued through July, a great many letters and specimens having been received from all sections of the State.

Nebraska. M. H. Swenk (June 15 to 30): A complaint of an abundance of the spider in a cellar in Boyd County was received on June 19.

Oklahoma. F. E. Whitehead (July 22): The black widow spider has been present in considerable numbers for several years in the vicinity of Stillwater. However, owing to newspaper publicity, more of them have been collected and many inquiries are coming from various parts of the State.

CATTLE

SCREW WORMS (*Cochliomyia* spp.)

General. E. C. Cushing (July 30): Reports received from southwestern Texas indicate that screw worms are continuing to cause enormous losses of livestock. Some ranchmen report infestations as high as 20 percent among certain classes of range animals. Owing to recent rains, the range feed is more abundant than it has been for several years; however, the rains have also caused a luxuriant growth of needle grass, one of the principal predisposing causes of screw worm infestations in sheep. The normal population of cattle is usually sufficient to keep the needle grass eaten down and prevent it from causing trouble, but the recent decrease in the numbers of cattle on the range has resulted in allowing this obnoxious grass to flourish. The screw worm situation in the Southeast is far less serious. The following tabulation summarizes the conditions in the seven States where the Bureau is conducting control operations:

State	Period	Animals examined	Cases reported	Counties involved
		Number	Number	Number
Georgia	June 22 - July 13	108,631	3,046	154
Florida	June 22 - July 6	533,053	27,290	59
Alabama	June 22 - July 13	611,286	178	33
Mississippi	June 22 - July 13	352,341	103	35
Louisiana	June 22 - July 13	360,304	972	11
South Carolina	June 22-29; July 6-13	12,200	27	10
Texas	June 22 - July 13	172,158	1,175	18

Texas. D. C. Parman and A. W. Lindquist (July 11): Screw worms, *C. americana* Cushing and Patton, are causing very serious losses to livestock owners in southwestern Texas, the outbreak being associated apparently with the unusually heavy precipitation during May and the early part of June. Some of the leading ranchmen in the vicinity of Uvalde state that they believe losses will be heavier in that section this year from screw worms than the losses from lack of feed during the droughts of 1933 and 1934.

STABLE FLY (*Stomoxys calcitrans* L.)

Iowa. C. J. Drake (July 29): Stable flies are unusually abundant this year.

Missouri. L. Haseman (July 22): During the middle of July stable flies were more annoying to cattle than for many seasons.

HORN FLY (Haematobia irritans L.)

Iowa. C. J. Drake (July 29): Horn flies are unusually abundant this year.

Missouri. L. Haseman (July 22): During the middle of July they were more annoying to cattle than for many seasons.

HORSES

HORSE BOTFLIES (Gastrophilus spp.)

North Dakota. J. A. Munro and F. D. Butcher (July 8): Nose and throat botflies are attacking horses over most of the State.

BUFFALO GNATS (Eusimulium spp.)

South Dakota. H. C. Severin (July 22): Buffalo gnats are fairly abundant in Hudson and vicinity, attacking poultry, horses, cattle, and man.

Texas. F. C. Bishopp (July 22): A. W. Lindquist and S. E. Jones report a rather serious outbreak of E. mediovittatum Knab in the vicinity of Winterhaven. As many as 5,000 of the gnats were found on a mule at one time, being concentrated mainly along the belly and around the ears. The gnats also attack other classes of animals, including milk cows, and it was found necessary to cover the udders. The outbreak was probably accentuated by the flood in this area.

SHEEP

SHEEP BOTFLY (Oestris ovis L.)

Utah. G. F. Knowlton (July 3): Head maggots were common at Woodruff during the past winter and spring. Reports indicate that they are common in sheep in other parts of Utah.

POULTRY

FOWL TICK (Argas miniatus Koch)

Mississippi. C. Lyle (July 23): An infestation of the fowl tick was reported on chickens at Wiggins the last of June by inspector J. P. Kislanko. This species is not known to be established elsewhere in Mississippi and very strict measures were taken to eradicate this infestation promptly.

HOUSEHOLD AND STORED-PRODUCTS INSECTS

TERMITES (Reticulitermes spp.)

Connecticut. N. Turner (July 22): Five new instances of damage to buildings by R. flavipes Koll. have been reported during the past month.

Missouri. L. Haseman (July 22): Termites have been unusually active this month and we are receiving many complaints of rather serious damage. Some of our orchard label stakes put out a month ago are practically destroyed.

Nebraska. M. H. Swenk (July 1-15): Termites, R. tibialis Bks., were reported doing damage in several instances during the period here covered. A comparatively new house in Clay County, a house in Douglas County, and an entire premise in Otoe County, including the potato crop on the lot, were the principal cases reported.

Oklahoma. C. F. Stiles (July 22): Owing to recent newspaper articles, considerable interest is being aroused in regard to the damage caused by termites. There are quite heavy infestations in Stillwater, Norman, and Shawnee.

MEAL MOTH (Pyralis farinalis L.)

California. H. C. Donohoe (July 1): Small numbers of adults were taken in malt-sirup bait traps in a variety of orchard locations in vicinities of Winters, Vacaville, Yuba City, and Orland during the last 2 weeks in June. This storage pest appears to be well established and widely distributed in the field in California, as it is also frequently taken in trap catches in the San Joaquin Valley.

BLOW FLIES (Lucilia spp.)

California. H. C. Donohoe (July 1): L. sericata Meig., and L. sylviarum Meig., especially the former, are abundant in drying yards. They swarm over the freshly spread, drying apricots, feed on the juice in the cups, and cause extensive injury to quality by deposits of excrement.